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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BALASUBRAMANIAN, VENKATARAMAN

ART UNIT PAPER NUMBER

1624

DATE MAILED: 12/17/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/685,053

Applicant(s)
ARMISTEAD ET AL.

Examiner
Venkataraman Balasubramanian

Art Unit
1624



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

DETAILED ACTION

Claims 1-31 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Following reasons apply. Any claim not specifically rejected is rejected as being dependent on a rejected claim.

1. Recitation of the phrase "comprising" in the definition of heterocyclic ring at various places of claim 1 and claim 13 renders these claims indefinite as the term is open-ended and can include more than what is being positively recited therein. See MPEP 2111.03 which states: The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981);

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- Ex parte Davis, 80 USPQ 448, 450 (Bd. App. 1948) (“comprising” leaves “the claim open for the inclusion of unspecified ingredients even in major amounts”)
2. The definition of haloalkyl in claim 1 is indefinite as it is not clear what is to be excluded as perhaloalkyl as recited therein. Specification has no definition of the term perhaloalkyl and hence it is not clear how many halo groups on the alkyl is to be treated as perhaloalkyl.
 3. Compound claims 2-21, which depend on claim 1, do not indicate the variable groups are as defined in claim 1 and hence it is not clear what are these variable groups are.
 4. The method of use claims 24-29 lack effective amount and therefore read on any or all amount.
 5. The process claim 31 lacks clarity as it recites “one or more of the formulae”. Note reacting more than one triaxzine with a nucleophile would lead to mixture of products- a composition- not a compound. Replacing “one or more” with “any one of” may obviate this rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 8 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Giraldi et al. US 3,074,943.

Giraldi et al. teaches several substituted triazines for use as anti viral agents, which include compounds generically claimed in the instant claims. See formula I and note the definition of R', R'', and R''' on col.1. Note when R''' is hydrogen, the compounds taught by Giraldi include those claimed in the instant claims. See examples 1-5 for compounds made and the intermediates used for making on col.2-3.

Claims 1, 5-8, 22 and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Cutler et al. US 3,097,205.

Cutler et al. teaches several disubstituted triazines, which include those, claimed in the instant claims for use as antibacterial agents. See formula I, III, IV, V, VI, VII and VII and note the definition of Y, Z and Z' on col. 1 through col. 3. Note the definition of Y, Z and Z' corresponds to instant R¹ and R². Also note the various choices of Z and Z' on col.2 and the process of making. See col. 3 –col.9 for examples of compounds made.

Claims 1, 6 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Cutler et al. US 3,209,003

Cutler et al. teaches several disubstituted triazines, which include those, claimed in the instant claims for use as antibacterial, antifungal and antiviral agents. See formula I and note the definition of X, R, Y¹ and Y² on col.1. Note the definition of X, R, Y¹ and Y² corresponds to compounds of instant R¹ and R². See examples 1-25 for various compounds made shown on col. 5 through 11.

Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Fischer US 3,855,220.

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Fischer teaches pyridinium- triazine and its intermediates which are also generically embraced in the instant claim. See compound of formula I and II on col. 1-2 and col. 4 and example 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 8-9 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton et al. US 5,062,882.

Newton et al. teaches several substituted triazines for use as herbicides. See formula I on col. 1 and note the definition of X, Y, Z, R¹ and R². Note when one of R¹ and R² group is hydrogen, the compounds taught by Newton et al. include those claimed in the instant claims. See examples 1-72 on col.5-18 for compounds made.

Instant claims recite disubstituted triazine, i.e. the third substituent on the triazine carbon is hydrogen. Newton et al. does not teach hydrogen for either of R¹ and R² in compounds made.

However Newton et al. teaches the equivalency of exemplified substituents for R¹ and R² groups with that claimed. See cols.1, formula I, especially the definitions of R¹ and R² groups. As one trained in the art would expect the species of the genus behave similarly and possess the same use, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds variously

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substituted in tirazine ring including species bearing hydrogen for R¹ or R₂ group as permitted by the reference and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Claims 1, 6, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riebel et al. US 6,284,710 (equivalent DE 196 41 693).

Riebel et al. teaches several substituted triazines for use as herbicides. See formula I on col. 1 and note the definition of X, Y, Z, R¹ and R². Note when Z is hydrogen, compounds taught by Riebel et al. include those claimed in the instant claims. See col. 6 through col. 58 for compounds made.

Instant claims recite disubstituted triazine, i.e. the third substituent on the triazine carbon is hydrogen. Riebel et al. does not teach hydrogen for Z in compounds made.

However Riebel et al. teaches the equivalency of exemplified substituents for Z groups with that claimed. See cols.1, formula I, especially the definition Z groups. As one trained in the art would expect the species of the genus behave similarly and possess the same use, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds variously substituted in tirazine ring including species bearing hydrogen for Z group as permitted by the reference and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

No claims are allowed.

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (703)

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305-1674. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 5.30 PM.

The fax phone number for the organization where this application or proceeding is assigned (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

V. Balasubramanian
Venkataraman Balasubramanian

12/16/2001